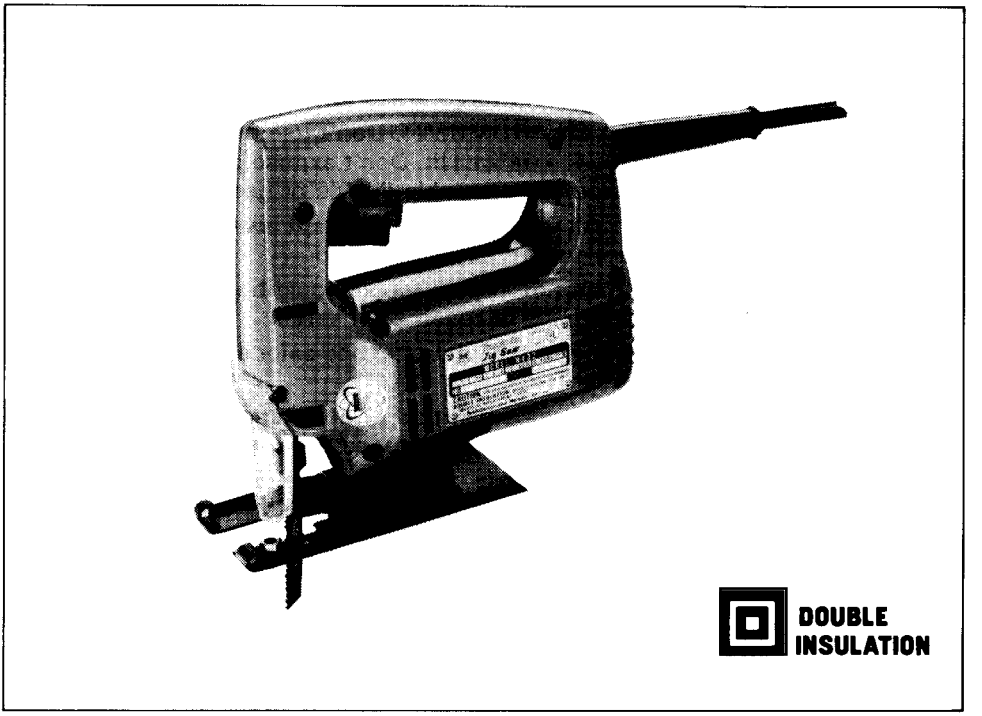
アメリカ

Makita Jig Saw

MODEL M432

INSTRUCTION MANUAL



SPECIFICATIONS

Length of stroke	Max. cutting capacities		Strokes per minute	Overall length	Net weight
	in wood	in steel			
18 mm (11/16")	50 mm (2")	6 mm (1/4")	0 – 3,300	190 mm (7-1/2")	1.5 kg (3.3 lbs)

* Manufacturer reserves the right to change specifications without notice.
* Note: Specifications may differ from country to country.

IMPORTANT SAFETY INSTRUCTIONS

(For All Tools)

WARNING: WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, AND PERSONAL INJURY, INCLUDING THE FOLLOWING:

READ ALL INSTRUCTIONS.

1. KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
2. CONSIDER WORK AREA ENVIRONMENT. Don't use power tools in damp or wet locations. Keep work area well lit. Don't expose power tools to rain. Don't use tool in presence of flammable liquids or gases.
3. KEEP CHILDREN AWAY. All visitors should be kept away from work area. Don't let visitors contact tool or extension cord.
4. STORE IDLE TOOLS. When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
5. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was intended.
6. USE RIGHT TOOL. Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended.
7. DRESS PROPERLY. Don't wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
8. USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty.
9. DON'T ABUSE CORD. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
10. SECURE WORK. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. DON'T OVERREACH. Keep proper footing and balance at all times.
12. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
13. DISCONNECT TOOLS. When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.

14. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. AVOID UNINTENTIONAL STARTING. Don't carry plugged-in tool with finger on switch. Be sure switch is OFF when plugging in.
16. OUTDOOR USE EXTENSION CORDS. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
17. STAY ALERT. Watch what you are doing, use common sense. Don't operate tool when you are tired.
18. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Don't use tool if switch does not turn it on and off.
19. GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
20. REPLACEMENT PARTS. When servicing, use only identical replacement parts.

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in SERIOUS INJURY to the user — as well as damage to the tool. If in doubt, DO NOT PLUG IN THE TOOL. Using a power source with voltage less than the nameplate rating is harmful to the motor.

ADDITIONAL SAFETY RULES

1. Avoid cutting nails. Inspect for and remove all nails from the workpiece before operation.
2. Don't cut hollow pipe.
3. Do not cut oversize workpiece.
4. Check for the proper clearance beneath the workpiece before cutting so that the blade will not strike the floor, workbench, etc.
5. Hold the tool firmly.
6. Check the blade is not contacting the workpiece before the switch is turned on.
7. Keep hands away from moving parts.
8. When cutting through walls, floors or wherever "live" electrical wires may be encountered, DO NOT TOUCH ANY METAL PARTS OF THE TOOL! Hold the tool only by the plastic handle to prevent electric shock if you cutting through a "live" wire.
9. Do not leave the tool running. Operate the tool only when hand-held.
10. Always switch off and wait for the blade to come to a complete stop before removing the blade from the workpiece.
11. Do not touch the blade or the workpiece immediately after operation; they may be extremely hot and could burn your skin.

SAVE THESE INSTRUCTIONS.

HOW TO USE

Mounting Makita jig saw blade

First, use the hex wrench to remove the bolt which secures the blade clamp to the blade holder shaft. With the blade teeth facing forward, place the shank of the blade over the flat side of the blade holder shaft. Then place the blade clamp over the other side of the blade shank. Secure this assembly together with bolt. Make sure that the bolt passes through the larger hole in the blade shank.

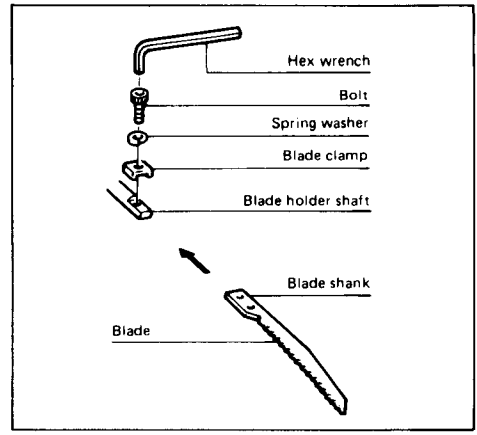


Fig. 1

Mounting universal shank jig saw blade

1. If the universal blade clamp is used, you can use blades of other makes which have a universal shank like the one shown on Fig. 2, with a blade width of 6.35 mm (1/4").

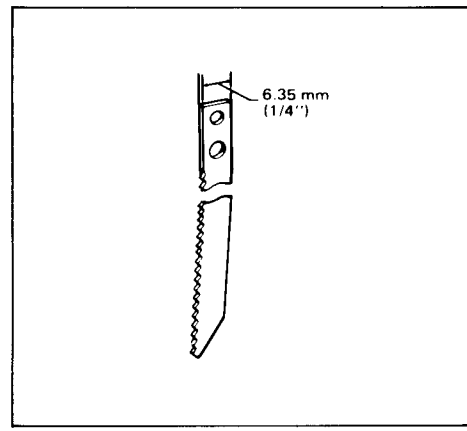


Fig. 2

2. Remove the blade clamp using the hex wrench. Then loosen the bolt on the universal blade clamp, and fit the universal shank blade onto spring pin inside the universal blade clamp. (Fig. 3).

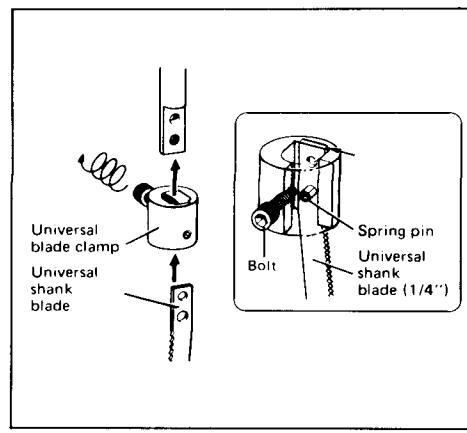


Fig. 3

3. Now attach the universal blade clamp to the blade holder (blade in place) so that the spring pin fits into the hole on the blade holder. Tighten the bolt securely with the hex wrench (Fig. 4).

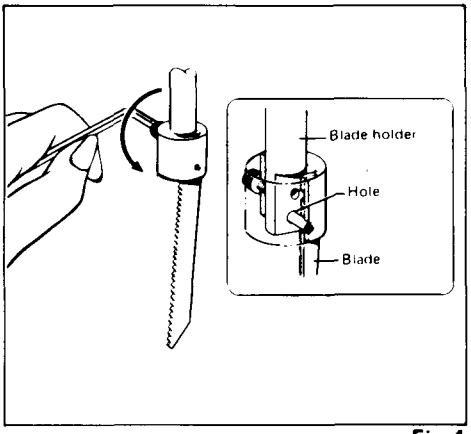


Fig. 4

Using roller

With the hex wrench, loosen the bolt which holds the base and retainer. Slide the retainer so that the roller contacts the blade, then tighten the bolt. However, when the blade you use does not have a straight back, slide the retainer back so that the roller will not contact the blade.

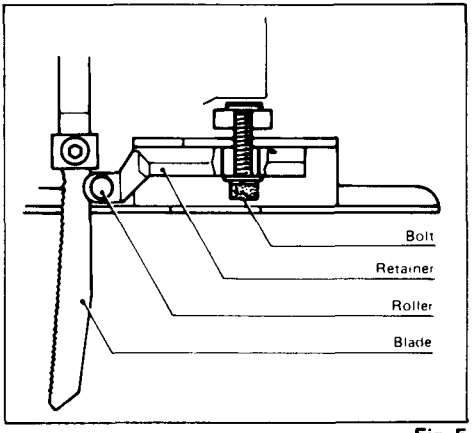


Fig. 5

Use a lubricant or cutting oil between the blade and roller when cutting iron or composition board, etc. Failure to do so will shorten the service life of your blade and roller.

Switch action

Tool speed is increased by increasing pressure on the trigger. To start the tool, simply pull the trigger. Release the trigger to stop. For continuous operation, pull the trigger and then push in the lock button. To stop the tool from the locked position, pull the trigger fully, then release it. A speed control screw is provided so that maximum tool speed can be limited (variable). Turn the speed control screw clockwise for higher speed, and counterclockwise for lower speed.

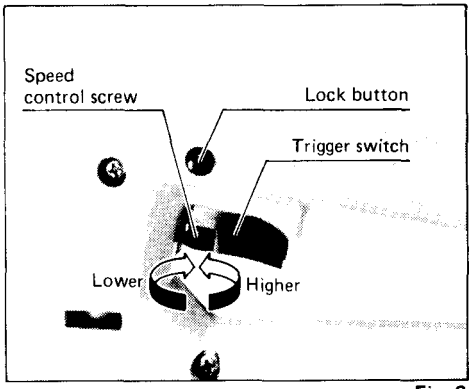


Fig. 6

CAUTION:

Before plugging in the tool, always check to see that the trigger switch actuates properly and returns to the "OFF" position when released.

Operation

Turn the tool on before contacting the workpiece. Then rest the base flat on the workpiece and gently move the tool forward along the previously marked cutting line.

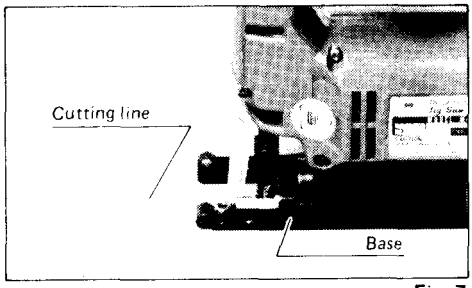


Fig. 7

Plunge cutting

- Starting a cut at other than the edge of the workpiece without first drilling a starting hole requires a "plunge cut". This can be accomplished by tipping the tool forward until the front end of the base rests against the workpiece. Switch the tool on and lower the back end of the tool slowly, gradually allowing the blade to saw through the wood until the base is able to sit flat on the workpiece. You may then proceed forward with the cut in a normal manner.
- If using a drill for a starting hole, bore a hole over 12 mm (1/2") in diameter. Then insert the blade in it and proceed.

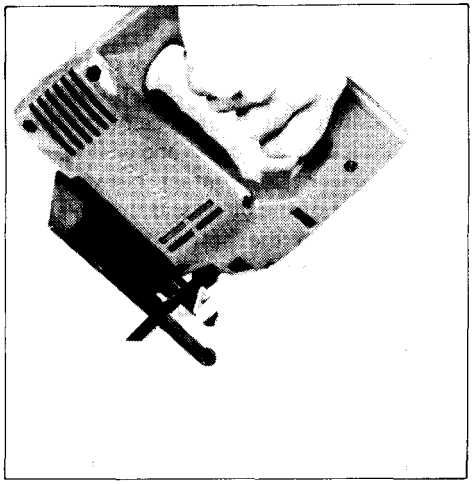


Fig. 8

Front flush cuts

Loosen the bolt on the back of the base with the hex wrench, then slide the base backwards. Check the contact between the back edge of the blade and support roller, then secure the bolt.

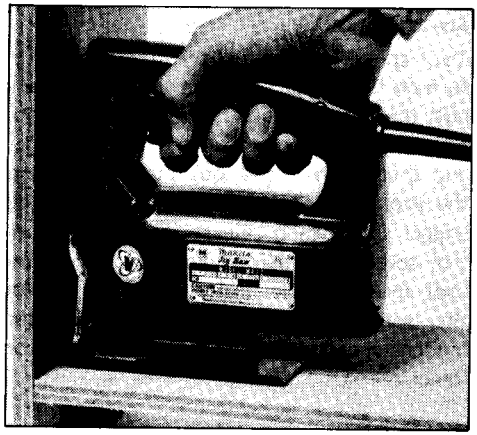


Fig. 9

Bevel cutting

1. With the base tilted, you can make bevel cuts at any angle between 0° and 45° (left to right).

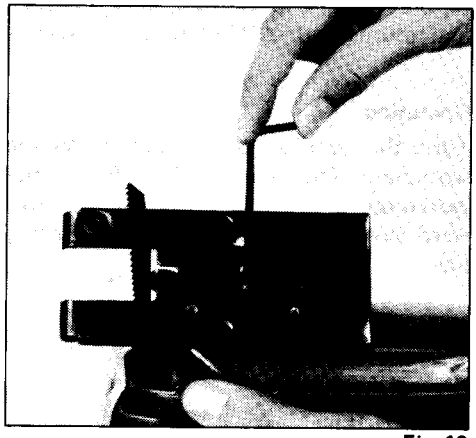


Fig. 10

2. Loosen the bolt on the back of the base with the hex wrench. Tilt the base to the desired angle. The edge of the housing indicates the bevel angle. (Fig. 11). Then check for contact between the back edge of the blade and the roller. Now tighten the bolt securely on the back of the base.

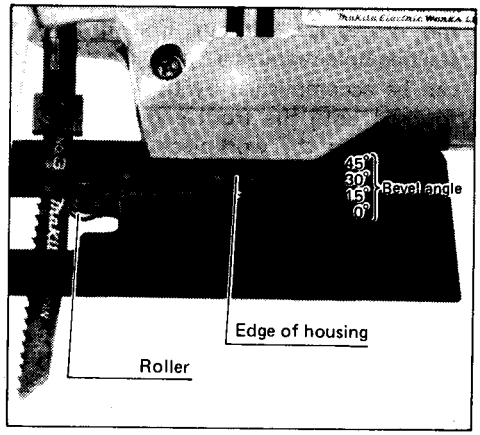


Fig. 11

Finishing edges

To trim edges or make dimensional adjustments, run the blade lightly along the cut edges.

For smoother cutting of plywoods or other materials with easily splintered surfaces, the wood may be coated or transparent tape used over your cutting line.

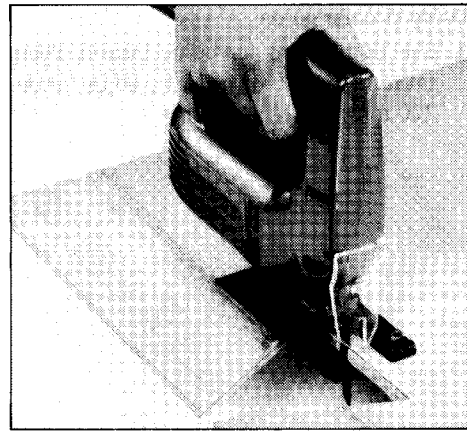


Fig. 12

Using guide rule (Rip fence)

1. When cutting widths of under 150 mm (6") repeatedly, use of the guide rule will assure fast, clean cuts.

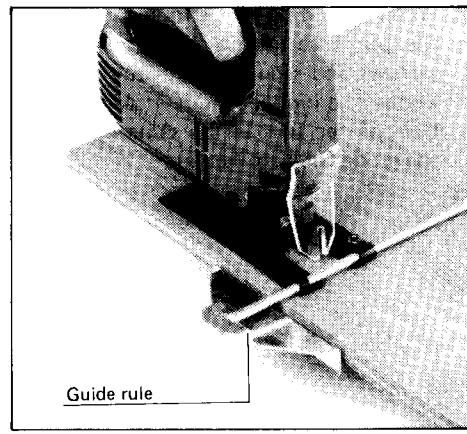


Fig. 13

2. To attach the guide rule (rip fence), use the hex wrench to loosen the screw on the under side of the base in front, slip in the guide rule and secure the screw.

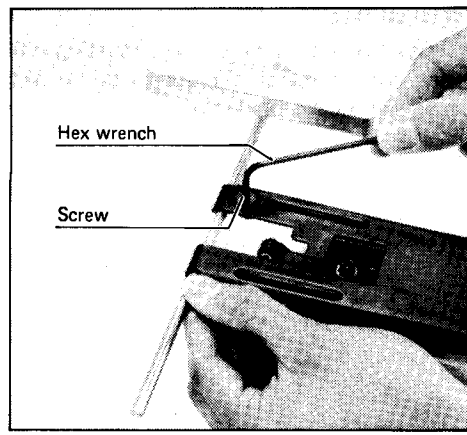


Fig. 14

Using circular guide

1. Use of the circular guide insures clean, smooth cutting of circles (radius; under 200 mm; 7-7/8") and arcs.

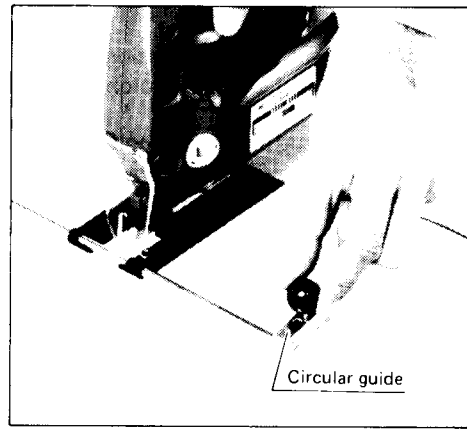


Fig. 15

2. When attaching the circular guide, use the pin, inserting it in the center hole (arrow) and secure it with the threaded knob. The circular guide attaches to the base of the tool in the same manner as the guide rule (rip fence).

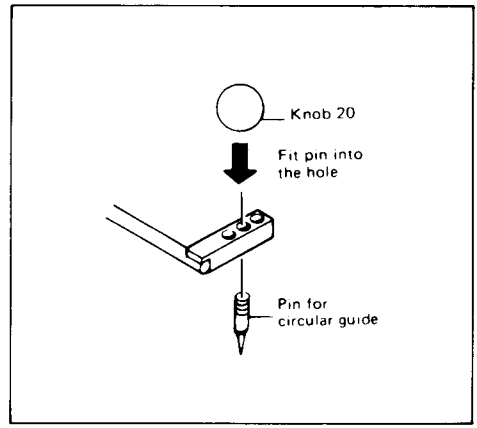


Fig. 16

Metal cutting

Always use a suitable coolant (cutting oil) when cutting metal. Failure to do so will cause significant blade wear.

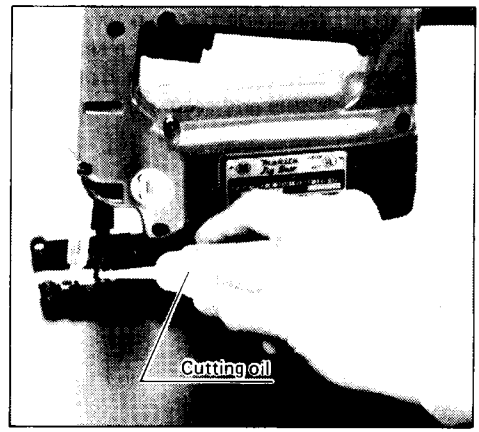


Fig. 17

The underside of the work can be greased instead of using a coolant. (Fig. 18)

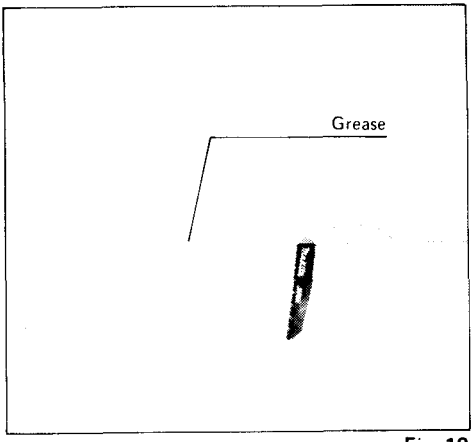


Fig. 18

MAINTENANCE

CAUTION:
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

The carbon brushes wear out after about 100 hours of operation.
To maintain product SAFETY and RELIABILITY, repairs, maintenance or adjustment including brush inspection and replacement should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

ACCESSORIES

CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

An exception: Universal shank jig saw blades with a thickness of 1 mm – 1.25 mm (1/32" – 3/64") and a length of 58 mm – 82 mm (2-9/32" – 3-7/32").

• **Jig saw blade** (2 per pkg)

Blade Type	Part No.	Teeth Per Inch	Overall Length	Applications
No. 1	723012-3-2	24	80 mm (3-5/32")	Soft steel, non-ferrous metals, angles, pipe, channels, etc.
No. 2	723009-2-2	14	80 mm (3-5/32")	Non-ferrous metals and plastics.
No. 3	723010-7-2	9	80 mm (3-5/32")	Wood and plywood.
No. 4	723011-5-2	9	80 mm (3-5/32")	Soft steel, non-ferrous metals, angles, pipe, channels, etc.
No. 5	723008-4-2	24	58 mm (2-9/32")	Soft steel and non-ferrous metals.
No. 8	723023-8-2	8	82 mm (3-7/32")	Wood and plywood. For very fast cutting.
No. 9	723024-6-2	8	82 mm (3-7/32")	Wood and plywood. For clean and smooth cuts.
No. 10	723025-4-2	8	82 mm (3-7/32")	Wood and plywood. For clean and smooth cuts, especially splinter free cuts in plywood.
No. 16	792211-8-2	9	82 mm (3-7/32")	Wood and plywood. Ideal for scroll cutting.
No. 17	792214-2-2	14	82 mm (3-7/32")	Non-ferrous metals and plastics. Ideal for scroll cutting.

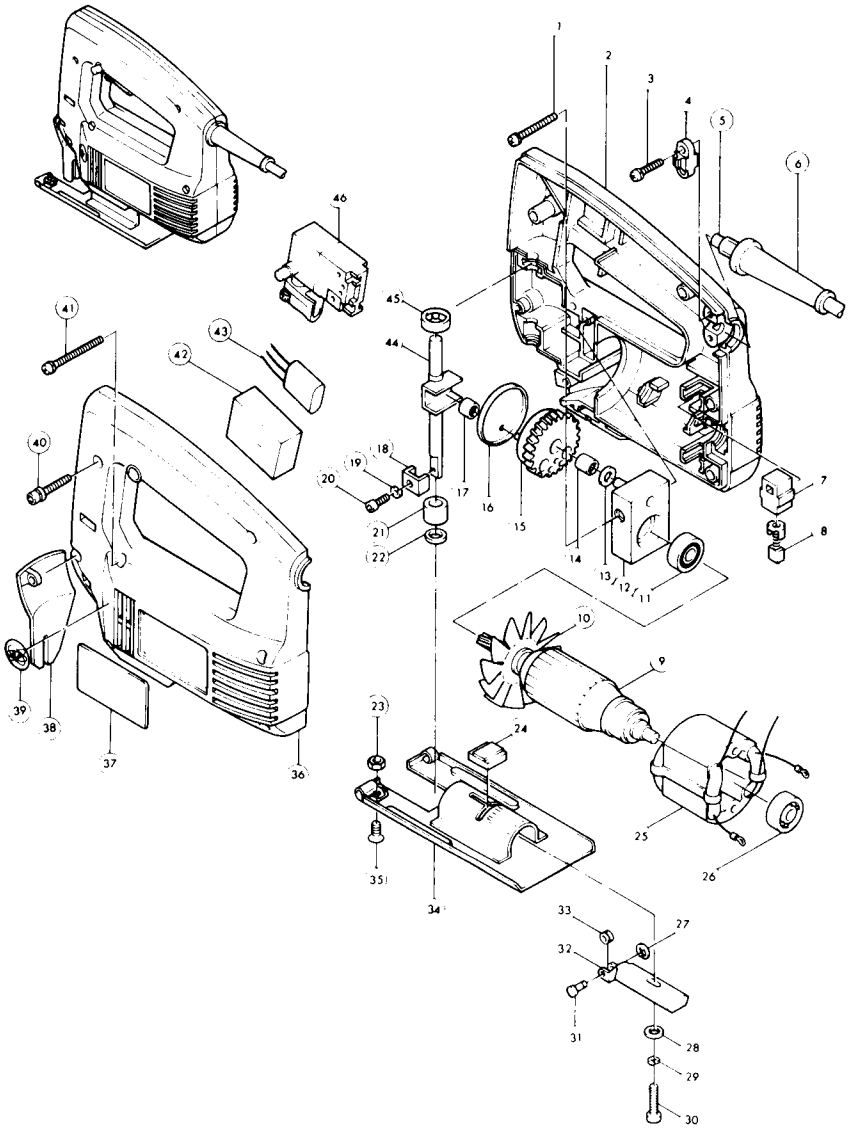
• **Guide rule (Rip fence)**
Part No. 164113-2

• **Hex wrench 3**
Part No. 783201-2

• **Circular guide assembly**
Part No. 123030-5

• **Universal blade clamp assembly**
Part No. 132276-2

JIG SAW
Model M432



Note: The switch, noise suppressor and other part configurations may differ from country to country.

ITEM NO.	NO. USED	DESCRIPTION
MACHINE		
1	1	Pan Head Screw M4x40 (With Washer)
2	1	Housing Set (With Item 36)
3	2	Pan Head Screw M4x18 (With Washer)
4	1	Strain Relief
5	1	Cord
6	1	Cord Guard
7	2	Brush Holder
8	2	Carbon Brush
9	1	ARMATURE ASSEMBLY
		(With Items 9, 11 & 26)
10	1	Fan 58
11	1	Ball Bearing 608LB
12	1	Bearing Case
13	1	Flat Washer 6
14	1	Needle Bearing 609
15	1	Gear
16	1	Gear Cover
17	1	Needle Bearing 407
18	1	Blade Clamp
19	1	Spring Washer 4
20	1	Hex. Socket Head Bolt M4x10
21	1	Plane Bearing 8
22	1	Felt Ring 8
23	1	Hex. Nut M5
24	1	Holder
25	1	FIELD ASSEMBLY
26	1	Ball Bearing 627LB
27	1	Stop Ring E 2.3
28	1	Flat Washer 4
29	1	Spring Washer 4
30	1	Hex. Socket Head Bolt M4x18
31	1	Pin 3
32	1	Retainer
33	1	Roller
34	1	Base
35	1	Hex. Socket Head Bolt M5x10
36	1	Housing Set (With Item 2)
37	1	Name Plate
38	1	Protector
39	1	Label
40	5	Pan Head Screw M4x25 (With Washer)
41	2	Pan Head Screw M4x40 (With Washer)
44	1	Blade Holder Shaft
45	1	Angular Ball Bearing 805
46	1	Switch
	4	Rivet 0.5 (Not Illustrated)

Note: The switch and other part specifications may differ from country to country.

アメリカ

MAKITA TWO YEAR LIMITED WARRANTY FOR HOME USE ONLY

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects for a period of **two years** from the date of original purchase. Should any trouble develop during this two year period, return the **complete** tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This warranty does **not** apply where:

- *operation of the tool has* ***not*** *been restricted* to Home Use
- repairs have been made or attempted by others
- repairs are required because of normal wear and tear
- the tool has been abused, misused or improperly maintained
- alterations have been made to the tool

In no event shall Makita be liable for any indirect, incidental or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of this warranty.

Makita disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose," after the two-year term of this warranty.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

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